



### **SYSPRO Products used in the Plastics and Rubber Industry**

- ▶ Assets Register
- ▶ Bill of Materials
- ▶ Quotations
- ▶ Sales Orders
- ▶ Contact Management
- ▶ Engineering Change Control
- ▶ Lot Traceability
- ▶ Landed Cost Tracking
- ▶ Requirements Planning
- ▶ Work in Progress
- ▶ SYSPRO Factory Scheduling
- ▶ Inventory

### **Key Features and Functions**

- ▶ By-products
- ▶ Co-products
- ▶ Dangerous goods text
- ▶ Asset capex system
- ▶ What-if costing
- ▶ Progressive scrap
- ▶ At a glance queries
- ▶ Supplier/stock code cross-reference
- ▶ Multi-currency
- ▶ GRN suspense
- ▶ Purchase order inspection
- ▶ Work in progress inspection
- ▶ Lead time calculation
- ▶ Backflushing

## **Plastics and Rubber**

SYSPRO's solutions for plastics and rubber are designed to complement and improve production efficiency, promote lean manufacturing, optimize cost management and enhance revenues and profitability.

Our modules provide full traceability for materials throughout the supply chain from raw material to final phase, making it easy to adapt and respond to either continuous or batch process manufacturing. SYSPRO provides seamless integration with CAD and other high technology processes, and will assist in areas such as balancing inventory levels, establishing appropriate pricing and analyzing customer and product portfolios.

The integrity of SYSPRO software will give you the accuracy and confidence you need in maintaining your competitive advantage.

### **Business Needs in the Plastics and Rubber Industry and how SYSPRO fills those needs:**

#### **Adopt LEAN manufacturing practices**

From enabling the identification and tracking of non-value adding activities inherent in your current operational processes, to the automation of manual processes, SYSPRO's powerful functionality provides you with the tools to implement your LEAN initiatives. Its integrated nature and ease-of-use facilitates the effortless extraction of financial and operational information required for Value Stream Mapping (VSM).

SYSPRO's Inventory module is a synchronized hub providing a consolidated view of all stock locations and those activities that impact inventory optimization and customer service levels, as well as the end-to-end elements of costs and lead times. Features such as Pareto and obsolescence analysis can assist in identifying those products that are suitable for VSM focus, while SYSPRO modules such as Engineering Change Control, Bills of Material, Work-in Progress and Factory Scheduling facilitate the evaluation of targets for kaizen programs, such as reduction in design and manufacturing costs, cycle times, queues and setups. SYSPRO's powerful inspection, serial tracking and lot traceability functionality aid in the identification and tracking of the source of defects, thereby enabling the implementation of kaizen initiatives towards the principle of 'Quality at the source'. The queries and reports in Work in Progress enable you to quickly assess the statuses, inventories and costs associated with work in progress, and provide metrics on utilization, efficiency, scrap and rework, while customer and supplier delivery performance metrics are provided by SYSPRO's powerful sales order and purchase order functionality.

SYSPRO's Inventory and Bills of Material modules enable the modeling of the LEAN techniques of batch size and setup reduction on costs, lead time and inventory. SYSPRO's Factory Scheduling provides graphical tools to assist you in optimizing your scheduling and sequencing processes, to reduce setup and overall lead time, and improve manufacturing flexibility and sale-to-customer flow. This, along with the inventory optimization and production planning features, enable you to refine the pace of production to match the pace of sales. Furthermore, features such as sales order / job / purchase order linking facilitate the electronic implementation of true pull supply chain processes where appropriate.

Document Flow Manager and SYSPRO e.net solutions enable you, not only to automate resource and time-intensive processes such as order processing, but also to handle increased volumes from global customers by providing order taking and acknowledgement on a 24/7 basis,

thereby improving lead time and freeing up staff to perform other value-adding tasks. Furthermore, SYSPRO's XML-aware solutions enable version-independent integration with best-of-breed shop floor monitoring and control systems.

The system's sophisticated reporting and analytics tools enable user-defined reports and queries, while its powerful customization functionality enables the creation of efficient workflows to implement business rules and standardize business processes. Additionally, the Office Automation and Messaging module enables the automatic raising of alerts, triggers and events, based on user-defined criteria, thereby aiding prompt problem solving and process improvement.

SYSPRO's flexible integrated features and best-practice focus give you single-point visibility and control, providing support for the implementation of your LEAN initiatives.

#### **Control, manage and conform with legislative and environmental requirements of hazardous material**

SYSPRO provides a number of features to assist you in the control and management of hazardous and dangerous goods with regards to storage, packing and transportation. SYSPRO's multimedia features enable you, per stock code, to link and display graphical, video and text information, such as material safety data sheets, dangerous goods safety marks, and safety gear icons. Operators then have access to view and print the information when required. In addition, the system's flexible custom form functionality enables you to capture dangerous and hazardous goods information per stock code. For example, you can create mandatory or optional custom forms to capture data such as hazard identification number, class, subsidiary risk, compatibility group, packing group, shipping name and register reference. You can easily configure SYSPRO to display and highlight custom form data on operator entry and query screens; and to print on reports (e.g. picking lists) and on stationery (e.g. job documentation, invoices and delivery notes).

SYSPRO also provides an extensive notes facility, the content of which you can configure to automatically print on certain documentation within the system. Notes include generic notes against all key fields, as well as special key field notes, such as the technical specification, dangerous goods handling, and inspection notes against inventory items.

SYSPRO's multi-warehouse functionality enables you to create virtual warehouses to represent separate dangerous goods storage areas for specific items. Alternatively, you

## Business Needs in the Plastics and Rubber Industry and how SYSPRO fills those needs (cont.)

can use SYSPRO's multiple bin functionality to represent segregated storage areas for incompatible items within the same warehouse code.

### Ensure quality of raw materials and monitoring during the production process

Chemical production plants are often highly automated with sophisticated measuring and testing systems designed to ensure quality of raw materials and work in progress, as well as high production yields. It is therefore desirable that any ERP production control and tracking system is able to integrate seamlessly with this process technology to exchange information and highlight issues at the relevant points. SYSPRO e.net solutions enables rapid development of secure and version-independent integration with such best-of-breed technology.

SYSPRO enables you to implement continuous improvement by helping you to identify problems and points of waste as they happen. Raw materials and manufactured products in the industry often vary in grade and quality, so tracking and control is essential to reduce waste, scrap and defects. SYSPRO enables you to specify approved manufacturers for raw material supplies and supplier performance can easily be tracked using queries and reports. In addition, SYSPRO facilitates the tracking of materials from purchase through production to customer, thereby maximizing quality control and providing you with the tools to manage product recalls, should they occur.

You can flag purchased items as requiring inspection so that during receipting, detailed records of counts, inspection, scrap, rejects and returns is recorded. Units in inspection are visible, but unavailable for use until accepted into stock. Similarly, SYSPRO's Work in Progress inspection system provides the tools for you to inspect manufactured product quality and, depending on the results, select to receipt, scrap or rework quantities.

### Improve electronic collaboration with trading partners

Quick response times and accuracy in fulfilling orders are critical to your reputation in a diverse and demanding global market. Your larger customers and suppliers may look increasingly to closer collaboration to cut production timetables and minimize disruption to their supply chain. This could involve working via their electronic order and supply chain systems, to enable streamlining of operations and to reduce margin for error. To achieve this, you must have adequate systems that can deliver information efficiently between you and your trading partners.

SYSPRO facilitates streamlined, secure electronic data interchange and collaborative commerce through features such as CAD integration, Document Flow Manager, SYSPRO e.net solutions, EDI, Office Automation and Messaging, and various Business-to-Business purchase and sales import and export functions. In addition, SYSPRO's Web-based applications are out-the-box solutions which you can run on the Internet/Intranet and easily customize to suit end-user requirements.

If your customers include Original Equipment Manufacturers (OEM) you can import and easily reconcile vendor EDI releases is using SYSPRO's Blanket Sales Order module.

### Manage complex production recipes

SYSPRO's multi-level bill of materials functionality enables the definition of complex production recipes of up to 15 levels per route, and 10 routes per finished product. Control over recipe changes is seamlessly handled by the Engineering Change Control module, while a where-used query and substitution facility enables quick and easy replacement of ingredients. SYSPRO's powerful costing and what-if costing calculations, reports and queries provide a comprehensive and accurate picture of purchasing and production costs.

The work center and structures and routings facilities provide you with the means to define and maintain the elements required in a sequence of internal or subcontract manufacturing operations, as well as the structural relationships between parent and component parts. Phantom bills are catered for to accommodate transient production items, and planning bill functionality aids option forecasting and planning. In addition, the configuration and manufacture of multiple items which are produced in a single process are catered for by SYSPRO's co- and by-product features.

For each bill level, you can define ingredient quantities such as quantity per, fixed quantities or wet weight percentages in relation to that specific level's parent item. Component and operation copy, insertion, and move facilities enable straightforward maintenance of new and existing bills.

SYSPRO provides various operation run time methods, as well as material and progressive scrap functionality. The capture of various lead time elements enables accurate calculations of manufacturing and cumulative lead times, which in turn aid efficient materials planning and production scheduling, as well as product costing.

You can simulate the effects of varying batches sizes and subcontracting on product costs and lead times. You can also add information on tooling, operator skill levels, operation instructions and testing requirements to the operation and print these fields on SYSPRO's user-defined factory documentation.

The relationship validation function enables you to easily identify illogical relationships within your bills, while the structure validation function facilitates quick deletion of redundant or superseded components from bill of material structures.

The Work in Progress module enables seamless ingredient substitution where actual ingredients differ from planned. Furthermore, where intermediate or finished products differ from planned, the Work in Progress inspection functionality enables receipting of these products as alternate stock codes, or into alternate warehouses or bins.

SYSPRO's multimedia functionality enables you to attach visual and textual material, such as videos, photographs, and certificates of conformance, to structures and operations, to aid production and quality assurance staff, while custom forms enables you to create additional user-defined fields.

Manage different units of measure for different levels in product bills of material SYSPRO's Inventory module enables the definition of multiple user-defined units of measure (UOM) for stocked items: Stocking UOM, Alternate UOM and Other UOM. In addition, a separate manufacturing UOM will be available in version SP3. These units of measure, along with their conversion factors are used in various parts of the system to ensure accurate quantities for sales, purchasing and production.

For production purposes, SYSPRO's multi-level bill of materials functionality enables you to define the manufacturing recipes and methods for bulk, intermediary and pack items, allowing for up to 15 levels per route, and 10 routes per finished product. For each level in a multi-level bill, you can define ingredient quantities as quantity per, fixed quantities or wet weight percentages in relation to that level's parent item.

### Manage dynamic product schedules

To gain the competitive edge, you must have the agility to respond to market demands at all levels of operation, without increasing costs and waste, and sacrificing efficiency. Whether you use line, batch or project processes, your scheduling activities must balance competing objectives. This includes the efficient management and execution of re-scheduling activities when business priorities and plans change or unexpected events occur.

Having the capability to create and execute an achievable schedule requires a comprehensive view of the current situation and available resources, as well as the tools to perform efficient re-scheduling if necessary. SYSPRO's visual scheduling products provide this capability to suit all levels of sophistication and complexity, from basic manual drag and drop, to automatic algorithm-driven scheduling and changeover optimization.

Particularly suited to job shop, batch process and project environments, SYSPRO Factory Scheduling provides the planner with an interactive decision support tool that helps balance demand and resource availability. Optimization is enhanced through the consideration of priorities, constraints, and conflicts, as well as sequencing and synchronization requirements. Automatic forward, backward and bi-directional scheduling is available, along with manual intervention. The customizable graphical interface enables quick and easy identification of schedule loads, job and operation statuses and links, and resource availability.

One-click schedule performance metrics, as well as the ability to run, save and compare schedules, provide what-if capability and enable the scheduler to choose the best option for the current circumstances.

Whether you operate a simple scheduling environment requiring single-constraint finite scheduling, or a complex environment requiring multi-constraint and rules-based finite scheduling, SYSPRO can help you optimize your scheduling activities with its Graphical Planning Board (GPB), Factory Scheduler (FS) or Advanced Scheduler (AS).

### Manage product and raw material traceability

Whether a compliance-critical requirement, or an analysis tool for continuous improvement strategies, the traceability of products from material origins through manufacture to final destination, is a key system requirement in many industries.

SYSPRO facilitates the recording of traceability and quality data on materials and products from purchasing through inspection, manufacturing, manufacturing inspection, stocking and sales. The recording of expiry and shelf-life information is also facilitated and powerful queries enable both upward and downward searches by stock code, lot number and transaction type.

SYSPRO's lot traceability and serial tracking functionality afford full visibility to the origins, build and customer destination of products and batches, thereby providing the means to easily trace and analyze the source of defects, should they occur. In addition, SYSPRO's Engineering Change Control module enables complete management and traceability of changes to product designs, while the Return Merchandise Authority module provide consistent handling of product returns, as well as analysis data for improvement programs.

## Business Needs in the Plastics and Rubber Industry and how SYSPRO fills those needs (cont.)

### Optimize production capacity and increase manufacturing efficiency

Increasing manufacturing efficiency means getting the right balance between demand and supply, while optimizing capacity, improving throughput, and reducing waste and variable costs. SYSPRO provides interactive decision support tools that give you visibility and control over all inputs and outputs. The Material Requirements Planning system gives you an integrated picture of your demand and supply, as well as your available capacity, enabling you to model what-if scenarios to produce viable replenishment and production plans. SYSPRO's Factory Scheduling assists you in maintaining accurate and up-to-date production schedules that take account of the complexities of your factory. This enables better coordination between work centers, increases productivity, reduces work in progress and achieves better customer service levels. Material and labor tracking, as well as cost, scrap and utilization management is facilitated through SYSPRO's Work in Progress module, which enables you to track in-process production at every stage and identify problems as they occur.

### Reduce costs and eliminate waste while remaining flexible and responsive

Understanding the true cost per transaction of doing business means identifying contributing elements, direct and indirect, across the entire organization. These include not only the cost efficiency of operational activities and their interrelationships, but also the time spent on manual and redundant processes, reconciliations, paperwork and reporting, as well as the cost of lost opportunities from a lack of agility in responding to the global marketplace. SYSPRO provides essential integrated visibility to your accounting, distribution and manufacturing operations, thereby enabling you to easily identify and track your cost elements and to target areas of waste for improvement programs. Additionally, it facilitates the automation of many processes that have traditionally been labor-intensive and time-consuming, such as operational-to-financial reconciliations and communicating with trading partners. It offers Standard, Average, Last, FIFO and LIFO costing methods flagged at warehouse level, thereby providing accurate operations-focused inventory valuation, which in turn supplies accurate input for product pricing and profitability. Comprehensive multi-level costing of manufactured items is provided through SYSPRO Bill of Materials and Work in Progress, with SYSPRO Product Configurator and Quotations and Estimating providing additional tools for assemble/make/engineer-to-order environments. Lot traceability, serial tracking and return merchandise functionality, along with SYSPRO's inspection systems, provide tracking of product defects, thereby helping you mitigate costly recalls. SYSPRO's cost roll up and implosion functionality, along with user-friendly costing queries, provides fast access to reliable information on which to base pricing and profit margins. In addition, its extensive what-if costing features enables modeling and comparison of the cost effects of alternative inputs, such as raw materials, production routes, labor rates and subcontractor rates. SYSPRO provides work in progress tracking, enabling evaluation of detailed actual versus expected costs, as well as targets for cost savings and continuous improvement programs. Used in conjunction with SYSPRO Projects and Contracts, it facilitates comprehensive project job costing. Visibility to production scheduling, along

with what-if sequencing and scheduling tools, enhance manufacturing agility and competitiveness and help to prevent lost sales in unpredictable demand environments.

Excess inventories tie up valuable resources both in terms of cost and warehouse management. SYSPRO helps you optimize, manage and track your inventories through its multi-warehouse Inventory, Material Requirements Planning, Purchase Order and Work in Progress. In addition, the Purchase Order and Landed Cost Tracking systems provide a more accurate estimate of the full landed cost of imported goods, with the GRN matching and reconciliation features facilitating electronic reconciliation of supplier deliveries and charges.

Accounts Receivable, Accounts Payable and Cash Book provide comprehensive balancing and reconciliation tools, as well as credit and cash flow management capability. Additionally, efficient administration of customer accruals, rebates and deductions is facilitated through SYSPRO Trade Promotions Management. Commitment accounting is provided through SYSPRO Accounts Payable and Purchasing, while the Assets Register ensures accurate maintenance and depreciation costing, and asset profit and loss realization.

SYSPRO's General Ledger (G/L) provides powerful queries with drill-down from journal to transaction source, as well as at-a-glance financial and activity ratios. Processing time is greatly reduced through features, such as sub-ledger integration and reconciliation, journal copy, journal import, automatic weighted transfer of costs and G/L analysis. Furthermore, SYSPRO's ease of ledger consolidation across complex businesses, along with its XML-based financial reporting features, enables prompt web-based deployment of financial reports to SYSPRO and non-SYSPRO users alike. SYSPRO's flexible user-defined stationery formats, along with SYSPRO Reporting Services (SRS), precludes the need for pre-printed stationery for invoices, delivery notes, order acknowledgments, dispatch notes, purchase orders and statements. In addition, SRS provides considerable savings by reducing the need for paper-based audit trails and reporting. Its automatic scheduling tool precludes the need for resource-intensive supervision of periodic and month-end reporting. Furthermore, the archiving feature provides for the electronic storage of reports as run, thereby enabling users to view them on-line to discern actual print requirements.

SYSPRO's Office (SOI), fax and email integration saves time, postage and paper by enabling you to deliver transactional documents, such as purchase orders and statements, directly from their point of extraction via secure electronic means. Additionally, SOI facilitates direct queries of key operational data from the desktops of enterprise-wide users and trading partners, without the need for the desktop installation or licensing of SYSPRO.

The capability to extend electronic communication, so as to automate the acceptance and acknowledgment of orders on a 24/7 basis, is provided via SYSPRO e.net solutions, Document Flow Manager and Web Applications. Furthermore, SYSPRO e.net solutions tools afford non-proprietary and version-independent integration to mobile devices and best-of-breed applications, such as shop floor control and quality monitoring systems.

The ROI of implementing SYSPRO is rapidly realized through full visibility to an integrated picture of your business operations and the resultant reduction in operational costs, processing time and human resources.